

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An implantable medical device with a calcium phosphate coating A stent comprising:
 - (a) substrate; and
 - (b) calcium phosphate coating on the substrate, wherein said coating having desired bonding and porosity characteristics has a thickness of no more than 1 μ m.
2. (Currently Amended) A device stent as claimed in claim 1 wherein the calcium phosphate coating [[is]] comprises hydroxyapatite.
3. (Currently Amended) A device stent as claimed in claim 1 wherein the thickness of the calcium phosphate coating is between about 0.00001 mm and 0.01 mm 0.01 μ m to 1 μ m.
4. (Currently Amended). A device stent as claimed in claim 1 wherein the thickness of the calcium phosphate coating is between about 0.001 mm and about 0.0001 mm 0.1 μ m to 1 μ m.
5. (Currently Amended) A device stent as claimed in claim 1 wherein the tensile bond strength between the substrate and the calcium phosphate coating is greater than about 20 MPa.
6. (Cancelled).
7. (Currently Amended) A device stent as claimed in claim 1 wherein the particles coating covers about 20% to about 99% of the surface of the substrate.

8. (Currently Amended) A device stent as claimed in claim 1 wherein the substrate is constructed of comprises a metal or metal alloy selected from stainless steel, cobalt alloy, titanium, cobalt-chromium, cobalt-iron, and cobalt-chromium-nickel-molybdenum-iron or metallic alloy.

9. (Currently Amended) A device stent as claimed in claim 1 wherein the calcium phosphate coating is porous and the pores retain and [[elude]] elute a drug.

10. (Cancelled).

11. (Currently Amended) A device stent as claimed in claim [[10]] 2 wherein the substrate has a first calcium phosphate coating and a second calcium phosphate coating and the drug is contained in the first and second coatings.

12. (Currently Amended) A device stent as claimed in claim 9 wherein the drug inhibits restenosis.

13. (Currently Amended) A device stent as claimed in claim 1 wherein the calcium phosphate coating [[is]] comprises dicalcium phosphate, tricalcium phosphate or tetracalcium phosphate.

14-36. (Cancelled).

37. (New) A stent as claimed in claim 1, wherein the tensile bond strength between the substrate and the calcium phosphate coating is greater than about 40 MPa.

38. (New) A stent as claimed in claim 1, wherein the calcium phosphate coating is an electrochemically deposited coating.

39. (New) A stent as claimed in claim 1, wherein the calcium phosphate coating is an electrophoretically deposited coating.

40. (New) A stent as claimed in claim 1, wherein the calcium phosphate coating is a sol gel deposited coating.

41. (New) A stent as claimed in claim 1, wherein the calcium phosphate coating is an aerosol gel deposited coating.

42. (New) A stent as claimed in claim 1, wherein the calcium phosphate coating is a dip-coated coating.

43. (New) A stent as claimed in claim 1, wherein the calcium phosphate coating is a spin-coated coating.

44. (New) A device comprising:

(a) a substrate; and

(b) a calcium phosphate coating on the substrate,

wherein the coating has a thickness ranging from 1 to 10 μm , and

wherein the coating is discontinuous in the form of islands or patches having a diameter ranging from 1 μm to 100 μm .

45. (New) A device as claimed in claim 44, wherein the device is a stent.

46. (New) A device as claimed in claim 44, wherein the calcium phosphate coating comprises hydroxyapatite.

47. (New) A device as claimed in claim 44, wherein the calcium phosphate coating comprises dicalcium phosphate, tricalcium phosphate or tetracalcium phosphate.

48. (New) A device as claimed in claim 44, wherein a tensile bond strength between the substrate and the calcium phosphate coating is greater than 20 MPa.

49. (New) A device as claimed in claim 44, wherein a tensile bond strength between the substrate and the calcium phosphate coating is greater than 40 MPa.

50. (New) A device as claimed in claim 44, wherein the calcium phosphate coating is porous and the pores retain and elute a drug.

51. (New) A device as claimed in claim 50, wherein the substrate has a first calcium phosphate coating and a second calcium phosphate coating and the drug is contained in the first and second coatings.

52. (New) A device as claimed in claim 50, wherein the drug inhibits restenosis.

53. (New) A device as claimed in claim 44, wherein the substrate comprises a metal or metal alloy selected from stainless steel, cobalt alloy, titanium, cobalt-chromium, cobalt-iron, and cobalt-chromium-nickel-molybdenum-iron.

54. (New) A device as claimed in claim 44, wherein the calcium phosphate coating is an electrochemically deposited coating.

55. (New) A device as claimed in claim 44, wherein the calcium phosphate coating is an electrophoretically deposited coating.

56. (New) A device as claimed in claim 44, wherein the calcium phosphate coating is a sol gel deposited coating.

57. (New) A device as claimed in claim 44, wherein the calcium phosphate coating is a dip-coated coating.

58. (New) A device as claimed in claim 44, wherein the calcium phosphate coating is a spin-coated coating.

59. (New) A device as claimed in claim 44, further comprising a continuous coating having a thickness no more than 1 μm .